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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,264	05/25/2007	Brian Henry Foskett	139356WOUS	4676
81352	7590	02/10/2011	EXAMINER	
RG and Associates 1103 Twin Creeks Allen, TX 75013			ELALLAM, AHMED	
			ART UNIT	PAPER NUMBER
			2471	
			NOTIFICATION DATE	DELIVERY MODE
			02/10/2011	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

michele.zarinelli@gmail.com  
patentpatent@gmail.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/596,264	FOSKETT ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	AHMED ELALLAM	2471	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
       Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
       Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on 17 January 2011 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 20, claim 20 recites in part:

“establishing a first leg between the first and second media gateways using TFO and establishing a second leg between the second media gateway and the network entity without using TFO after sending a TFO acknowledgement from the second media gateway”, however, it is already recited in parent claim 15, the step of “establishing a second leg between the first media gateway and the network entity without using TFO”, thus having both second leg between the first media gateway and the network entity without using TFO, and establishing a first leg between the first and second media

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gateways using TFO is contradictory, because having a TFO and non-TFO “leg” being established between the first gateway and second gateway make no sense, the reasons is that there is only one “leg” in between first and second gateway. Therefore, the meaning of claim 20 is indefinite.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabipour US2004/0004957 A1. Hereinafter referred to as Rabipour.

#### **As to independent claims 1, 9:**

Regarding claim 1, with reference to figures 2-4, Rabipour discloses method for providing packet-based tandem free operation (TFO) in a telecommunications system having a first remote entity (claimed first network element), a second remote entity (claimed third network element), and a gateway positioned between the first remote entity and second remote entity (claimed second network element positioned between the first and third network elements), see paragraph [0022], the method comprising:

The gateway comprising a control entity for monitoring end-to-end connection and for detecting the presence of in-band messages received from the first remote

entity, the in-band messages being indicative of an attempt by the first remote entity to enter a tandem-free mode of operation (Claimed monitoring packets sent from the first network element to the third network element to identify a TFO request message), and in the absence of an in-band response message from the second remote entity, the control entity is operative to generate and send an in-band response message to the first remote entity, see paragraph [0022]; (Claimed monitoring packets sent from the third network element to the first network element to identify a TFO acknowledgement message from the third network element in response to the TFO request message, sending a substitute TFO acknowledgement message from the second network element to the first network element if no TFO acknowledgement message is identified from the third network element).

Regarding claim 9, with reference to figures 2-4, Rabipour discloses method for providing packet-based tandem free operation (TFO) in a telecommunications system having a first remote entity configured for tandem free operation (claimed first device configured for TFO capability), a second remote entity (claimed second device not configured for TFO capability); and a gateway positioned between the first remote entity and second remote entity (claimed first media gateway positioned between a first device second device, see paragraph [0022], the method comprising:

The gateway comprising a control entity for monitoring end-to-end connection and for detecting the presence of in-band messages received from the first remote entity, the in-band messages being indicative of an attempt by the first remote entity to enter a tandem-free mode of operation, and in the absence of an in-band response

message from the second remote entity, the control entity is operative to generate and send an in-band response message to the first remote entity and negotiate therewith establishment of a second connection with the first remote entity, while maintaining the portion of the end-to-end connection between the gateway and the second remote entity. See paragraph [0022]. (claimed monitoring packets sent from the first device to the second device to identify a TFO request, wherein the monitoring is performed by the media gateway; monitoring packets sent from the second device to the first device to identify a TFO acknowledgement sent in response to the TFO request, wherein the monitoring is performed by the media gateway; sending a substitute TFO acknowledgement from the media gateway to the first device if no TFO acknowledgement is identified from the second device).

**As to claims 1 and 9:**

The difference between Rabipour and claims 1 and 9, is that, Rabipour after sending the in-band response message to the first remote entity, (see paragraph [0022]), it negotiates establishing of a second connection with the first remote entity, but does not **explicitly** specify the second connection being a TFO connection (claimed TFO leg between the first and second network element as in claim 1, or TFO leg between the first device and media gateway as in claim 9), Rabipour maintains the portion of the end-to-end connection between the gateway and the second remote entity, (claimed establishing a non-TFO call leg between the second and third network element, as in

claim 1, and establishing a second leg between the media gateway and second device without using TFO).

However, Rabipour in another embodiment discloses a gateway, including an interface for allowing establishment of a first connection to a first remote entity and a second connection to a second remote entity, the first connection being a TFO connection. The gateway also includes a control entity operative to monitor the second connection; detect the presence of TFO messages received from the second remote entity; and in the presence of in-band TFO messages received from the second remote entity, establish an end-to-end TFO connection between the first and second remote entities. See paragraph [0024]. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to establish the connection with the first remote entity as a TFO connection during the negotiation as evidenced by the desire of the first remote entity to enter a tandem-free mode of operation (Claimed TFO call leg between the first and second network elements), and to keep the connection between the gateway and the second remote entity as non-TFO connection, (claimed establishing a non-TFO call leg between the second and third element). (The absence of in-band response indicates that the connection between the gateway and the second remote entity is a non-TFO connection). The advantage would be the ability to improve voice quality of a call by partially eliminating the vocoding (bypassing vocoding) of the end-to-end connection. A person of ordinary skill in the art would do so by recognizing the advantage to exploit the ability of one party's TFO capabilities, even

when the other party is not a TFO-enabled base station unit (Rabipour paragraph [0010]).

Regarding claim 15, Rabipour discloses with reference to figure 5, a system for providing packet-based tandem free operation (TFO), the system comprising:

A gateway 530 coupled to a MSC (See figure 4), the gateway having TFO capabilities, see paragraph [0055], and the gateway having a TRAU connected to a remote entity (PSTN network coupled to a remote network entity (MSC) 520 (MSC correspond to claimed BSC) (see also remote entity 260 of figure 2) ; ( Claimed a first media gateway coupled to a Base Station Controller (BSC) having TFO capabilities and a network entity not capable of supporting TFO); Rabipour also discloses providing the gateway with the intelligence to recognize and support the in-band messaging protocol (para [0056]), further as discussed above claims 1 and 9, the gateway having the control entity for monitoring end-to-end connection and for detecting the presence of in-band messages received from a remote entity, the in-band messages being indicative of an attempt by a first remote entity to enter a tandem-free mode of operation, and in the absence of an in-band response message from the second remote entity, the control entity is operative to generate and send an in-band response message to the first remote entity and negotiate therewith establishment of a second connection with the first remote entity. See paragraph [0022], this combined teaching reads on (Claimed monitoring packets sent from the BSC to the network entity to identify a TFO request; monitoring packets sent from the network entity to the BSC to identify a TFO acknowledgement sent in response to the TFO request; sending a substitute TFO



acknowledgement from the first media gateway to the BSC if no TFO acknowledgement is identified from the network entity);

The difference between Rabipour and claim 15, is that Rabipour in the process of negotiation, it maintains the portion of the end-to-end connection between the gateway and the remote entity (para [0022]), Rabipour does not need to establish the portion of the end-to-end connection between the gateway and the remote entity because it is already established and it is a non-TFO portion as evidenced by the lack of response to the in-band message, Rabipour also discloses that TFO speech information could then be carried from, gateway 530 to gateway 540, whereupon it will be injected back into the G.711 sample stream in place of the incompatible transcoding in backhaul gateways 530 and 540, see paragraph [0056] (this teaching provides for the connection between the BSC and first gateway been a TFO connection, since it avoids the transcoding of the gateways). (Claimed using TFO and establishing a second leg between the first media gateway and the network entity without using TFO).

Therefore, it would have been obvious to a person of skill in the art at the time the invention was made to establish the connection between the gateway and the remote entity using a non-TFO if the lack of response is not enough indication that such connection should be maintained.

Regarding claim 21, claim 21 is a means claim having the same scope of claim 1, thus it is subject to similar rejection.

**As to dependent claims 2-8, 10-14, 16-20 and 22:**

Regarding claims 2, 10, 17 and 22, Rabipour discloses that after a timeout period, recognizing that the entity connected at the other end is not eTFO-capable, the gateway 220 can proceed to initiate its own response. See paragraph [0049]. (Claimed determining whether a timeout period has elapsed without identifying the TFO acknowledgement message from the third network element ; and sending the substitute TFO acknowledgement message from the second network element only if the timeout period has elapsed, as in claims 2 and 22, and determining whether a timeout period has elapsed without identifying the TFO acknowledgement from the second device; and sending the TFO acknowledgement from the media gateway only if the timeout period has elapsed, as in claim 10, and determining whether a timeout period has elapsed without identifying the TFO acknowledgement from the network entity; and instructions for sending the TFO acknowledgement from the first media gateway only if the timeout period has elapsed, as in claim 17).

Regarding claim 3, 4, 11 and 12, claims 3 and 11 calls for starting the timeout period after identifying the TFO request message, and claims 4 and 12 calls for setting the timeout period to a predefined period of time prior to starting the timeout period. Rabipour implicitly discloses these features because Rabipour specifies that after a timeout period, recognizing that the entity connected at the other end is not eTFO-capable, the gateway 220 can proceed to initiate its own response. See paragraph [0049]. (Note: The timeout period being initiated when the Gateway receive the TFO request, as discussed above claim 1).

Regarding claim 5, Rabipour discloses the entity between the end devices is a media gateway, see paragraph [0022].

Regarding claim 6, Rabipour discloses that the gateway is equipped with the intelligence to emulate an eTFO-capable entity. See paragraph [0048], (see also paragraphs [0038] and [0041]). (Claimed the TFO call leg includes the use of enhanced TFO (eTFO)).

Regarding claims 7, 13, and 18, Rabipour discloses in an embodiment that when the gateway is connected to a non-eTFO-capable entity, wherein the gateway recognizes the other end is not eTFO-capable, the coding and decoding is shifted to the gateway instead of the TRAU. See paragraphs [0048]-[0049]. (Claimed establishing a non-TFO call if no TFO request message is identified).

Regarding claims 8, 14, and 19, Rabipour discloses that the gateway, including an interface for allowing establishment of a first connection to a first remote entity and a second connection to a second remote entity, the first connection being a TFO connection. The gateway also includes a control entity operative to monitor the second connection; detect the presence of TFO messages received from the second remote entity; and in the presence of in-band TFO messages received from the second remote entity, establish an end-to-end TFO connection between the first and second remote entities. See paragraph [0024]. (Claimed establishing an end-to-end TFO call if a TFO acknowledgement message is identified from the third network element, as in claim 8; and establishing an end-to-end TFO call if the substitute TFO acknowledgement is identified from the network entity, as in claims 14 and 19).

Regarding claim 16, with reference to figure 5, Rabipour discloses a Mobile Switching Center 520 connected to gateway 530. (Claimed system further comprising at least a first mobile switching center coupled to the first media gateway.

Regarding claim 20, with reference to figure 2, Rabipour shows a first gateway (control entity with TRAU 12), (the first gateway correspond to the claimed at least one media gateway) and a second gateway 220 between the first gateway and the network 240. Rabipour also discloses the second gateway being connected to a non-eTFO-capable entity and is equipped with the intelligence to emulate a eTFO-capable entity, TRAU 12 proceeds to send TFO setup information in an attempt to communicate with a remote entity 260 via a gateway 220, The gateway 220 monitors the messages but, in anticipation of a response from remote entity 260, it does not respond, see paragraph [0048]. Additionally, Rabipour discloses that after a timeout period, recognizing that the entity connected at the other end is not eTFO-capable, the gateway 220 can proceed to initiate its own response, with the ensuing handshaking resulting in the transmission of TFO speech information through a packet-switched communication path 250 established through the network 240, see paragraph [0049]. (Claimed second media gateway positioned between the first media gateway and the network entity; monitoring packets sent from the first media gateway to the network entity to identify a TFO request; monitoring packets sent from the network entity to the first media gateway to identify a TFO acknowledgement; sending a substitute TFO acknowledgement from the second media gateway to the first media gateway if no TFO acknowledgement is identified from the network entity; and establishing a first leg between the first and

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second media gateways using TFO and establishing a second leg between the second media gateway and the network entity without using TFO after sending a TFO acknowledgement from the second media gateway).

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

#### **Claim objections:**

The objections to claims 15 and 20 have been withdrawn in view of the Amendment.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571)272-3097. The examiner can normally be reached on 7-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/AHMED ELALLAM/  
Examiner, Art Unit 2471  
2/4/11

/Chi H Pham/  
Supervisory Patent Examiner, Art  
Unit 2471